

--ABSTRACT OF THE DISCLOSURE

In one aspect, the invention encompasses a transistor device comprising a region of a semiconductor material wafer, and a transistor gate over a portion of the region. The transistor gate has a pair of opposing sidewalls which are a first sidewall and a second sidewall. The device further comprises a pair of opposing sidewall spacers adjacent the sidewalls of the transistor gate and a pair of opposing first conductivity type source/drain regions within the semiconductor material wafer proximate the transistor gate. One of the sidewall spacers extends along the first sidewall of the gate and the other of the sidewall spacers extends along the second sidewall of the gate. The entirety of the semiconductor wafer material under one of the sidewall spacers being defined as a first segment of the semiconductor wafer material, and the entirety of the semiconductor wafer material which is under the other of the sidewall spacers being defined as a second segment of the semiconductor wafer material. The first and second segments of the semiconductor material wafer are separated from the first and second source/drain regions by first and second gap regions, respectively, of the semiconductor material wafer. The device further comprises a pair of opposing second conductivity type halo regions within the first and second gap regions.--.